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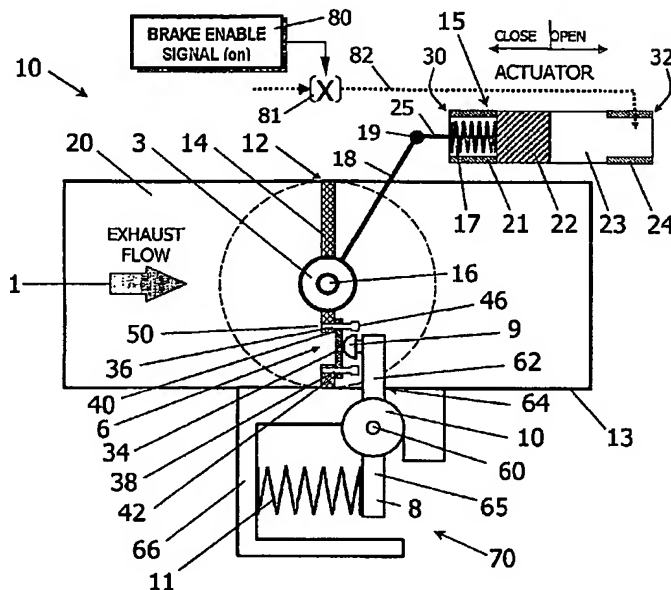
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MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
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[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR PRESSURE RELIEF IN AN EXHAUST BRAKE



(57) Abstract: An exhaust brake has a body with a passageway for exhaust gases therein. A valve member is movably located within the passageway for selective movement between an open position where the valve member opens the passageway and exhaust gases are free to move through the passageway and a closed position where the valve member blocks the passageway and the passage of exhaust gases through the passageway. The valve member has an aperture therethrough to permit a limited flow of exhaust gases through the aperture when the aperture is open. An exhaust valve actuator mechanism is coupled to the valve member for moving the valve member between the open position and the closed position. A closure member is positioned adjacent to the aperture. The closure member has an open position where the closure member is spaced apart from the valve member and permits a flow of exhaust gases through the aperture and the closure member having a closed position where the closure member contacts the valve

member about the aperture and inhibits a flow of exhaust gases through the aperture. An actuator member operatively engages the closure member. There is a relief actuator mechanism, the relief actuator mechanism including an actuator member that operatively engages the closure member. The relief mechanism brings the closure member into operative engagement with the valve member with sufficient force, when the valve member is closed, to maintain the closure member in the closed position when the exhaust gases are below a predetermined pressure.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/002080

## A. CLASSIFICATION OF SUBJECT MATTER

IPC[7]: F02D-9/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC[7]: F02D

USPC: 188/154

CPC: 123/7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms

Epodoc, Derwent, Patent Abstracts of Japan, CPD, Key Words: Engine, Exhaust, Jake, Brake, Relief, Bypass

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant	Relevant to claim No(s).
X	US 6,179,096 B1 (KINERSON, K. et al.) 30 January 2001 (30-01-2001) Page 5, Lines 13-34; Page 6, Lines 60-67; Page 7, Lines 1-64; Figures 1-6	1-8, 12-14, 16-30, 34-36, 38-52, 56-58 and 60-66
A	US 6,223,534 B1 (ERDMANN, W. et al.) 1 May 2001 (01-05-2001)	All
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A	US 2003/0131894 A1 (HECKT, R. et al.) 17 July 2003 (17-07-2003)	All

[ ] Further documents are listed in the continuation of Box C. [X] See patent family annex.

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 "P" document published prior to the international filing date but later than the priority date claimed

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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

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# INTERNATIONAL SEARCH REPORT

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Information on patent family members

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
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